

Serial No. 10/575,890  
Reply to Office Action dated July 8, 2010

Docket No. 1006/0113PUS1

**REMARKS/ARGUMENTS**

Favorable reconsideration and allowance of the present application is respectfully requested. Claims 1-31 and 33 are pending in the above application, of which claims 1, 14 and 29 are independent.

The Office Action dated July 8, 2010, has been received and carefully reviewed. In that Office Action, claims 1-7, 10, 12-15, 24-26 and 29-31 and 33 were rejected under 35 U.S.C. 103(a) as being unpatentable over DE 10260030 (hereinafter, "Demuth") in view of JP 2000-081289 (hereinafter "Shohei"), claims 16 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Demuth in view of Shohei and further in view of Carpentier, claims 8 and 9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Demuth in view of Shohei and further in view of Hayashi, and claims 27 and 28 were rejected under 35 U.S.C. 103(a) as being unpatentable over Demuth in view of Shohei and further in view of Hirao. An objection to claim 1 was also raised. It is believed that all claims are allowable over the art of record, and reconsideration and allowance of claims 1-31 and 33 is respectfully requested in view of the following remarks.

**CLAIM OBJECTION**

The Office Action asserts that the word "the" should be added to line 10 of claim 1 before the phrase "housing casing" so that the claim will make grammatical sense. This objection is respectfully traversed, and it is submitted that claim 1 is grammatical as written. The phrase objected to by the examiner is "a housing casing having open ends which housing casing surrounds the pipes...." The phrase "which housing casing"

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makes clear that it is the housing casing that surrounds the pipes rather than the "open ends." Changing this phrase to "which the housing casing" would change the meaning of the claim and is not what Applicant intended. Claim 1 is submitted to be grammatical as written, and the withdrawal of the objection to claim 1 is respectfully requested.

**REJECTIONS UNDER 35 U.S.C. 103(a)**

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Demuth in view of Shohei. Claim 1 recites a heat exchanger having a heat exchanger block which has pipes through which a first medium can flow on the primary side, and around which a second medium can flow on the secondary side. The pipes have flow ducts and pipe ends, and the heat exchanger includes a first end piece and a second end piece which hold the pipe ends, and each end piece has at least one base plate, diverter plate and cover plate as well as at least one inlet chamber and/or outlet chamber which is connected to one end piece. It is possible to conduct the first medium from the inlet chamber to the outlet chamber through the flow ducts. The heat exchanger also includes a housing casing having open ends which casing surrounds the pipes and has an inlet and an outlet for the second medium. The open ends of the housing are closed by the first end piece and the second end piece. The Office Action acknowledges that Demuth lacks a housing as claimed. However, it is asserted in the Office Action that based on the teachings of Shohei, it would have been obvious to modify Demuth to meet the limitations of claim 1.

The English language abstract of Shohei indicates that Shohei discloses a "heat exchanger." "Area (19)" of Shohei referred to in the Office Action appears to be a

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housing. The Office Action also asserts that Shohei includes "end pieces" 16 and 18. However, this rejection does not address the fact that claim 1 recites that the end pieces 1) hold the pipe ends and 2) close the open ends of the housing. Nothing in the record suggests that end pieces 16 and 18 of Shohei hold pipe ends as claimed. Placing Demuth's heat exchanger inside housing 19 of Shohei would not result in the invention of claim 1. At least these limitations of claim 1 are not satisfied by the art of record, and claim 1 is submitted to be allowable over Demuth and Shohei for at least this reason.

If the rejection of claim 1 based on Demuth and Shohei is maintained, it is respectfully requested that the examiner explain how end pieces 16 and 18 of Shohei are believed to hold pipe ends as recited in claim 1 so that the basis for this rejection can be better understood.

It is also submitted that a proper reason for modifying Demuth has not been provided as required by *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007), and that a prima facie case of obviousness has not been provided. The reason for modifying Demuth is based on the assertion that Demuth's heat exchanger is "limited to gas." Demuth discloses an embodiment in which "air" flows over his pipes. However, nothing in Demuth indicates that Demuth's heat exchanger is limited to gas as stated in the Office Action - it appears that if the heat exchanger were placed in a flow of liquid, for example, the liquid would cool the pipes. The rejection is based on a premise that is not supported by the record, and this false premise does not constitute a reason that one of ordinary skill in the art would have found it desirable to modify Demuth. Claim 1 is submitted to be allowable for at least this reason.

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If this rejection is maintained, it is respectfully requested that portion of Demuth showing that Demuth is "limited to gas" be identified.

Claims 2-13 and 18-28 depend from claim 1 and are submitted to be allowable for at least the same reasons as claim 1.

The rejection of claim 14 appears to be based on a misinterpretation of the term "longitudinal" used therein. The rejection of claim 14 and the "response to arguments" sections of the Office Action both seem to suggest that "longitudinal" means "horizontal." As shown by the dictionary definition of longitudinal submitted herewith from the Merriam-Webster Online Dictionary ([www.merriam-webster.com](http://www.merriam-webster.com)), "longitudinal" means "of or relating to the length or lengthwise dimension." Claim 14 recites ducts running in a longitudinal direction. Demuth shows ducts running perpendicular to the longitudinal direction, that is, in a width direction. Regardless of how Demuth's device is oriented, the ducts will not run in a longitudinal direction. Demuth does not show at least this limitation of claim 14, Shohei does not address this shortcoming of Demuth, and claim 14 is submitted to be allowable for at least this reason.

Claims 15-17 depend from claim 14 and are submitted to be allowable for at least the same reasons as claim 14.

Claim 29 recites a heat exchanger for a motor vehicle that includes, inter alia, a housing casing surrounding pipes that has first and second open ends and at least one sidewall. The first and second open ends are closed by the first and second end pieces of the heat exchanger. Similar limitations appear in claim 1, and claim 29 is submitted to be allowable over the art of record for at least the same reasons as were presented above in connection with claim 1.

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Claims 30, 31 and 33 depend from claim 29 and are submitted to be allowable for at least the same reasons as claim 29.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demuth in view of Shohei and further in view of Carpentier. Claims 16 and 17 depend from claim 14. Carpentier does not address the shortcomings of Demuth and Shohei discussed above in connection with claim 14. Claims 16 and 17 are therefore submitted to be allowable for at least the same reasons as claim 14.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demuth in view of Shohei and further in view of Hayashi. Claims 8 and 9 depend from claim 1. Hayashi does not address the shortcomings of Demuth and Shohei discussed above in connection with claim 1, and claims 8 and 9 are submitted to be allowable over the art of record for at least the same reasons as claim 1.

Claims 27 and 28 were rejected under 35 U.S.C. 103(a) as being unpatentable over Demuth in view of Shohei and further in view of Hirao. Claims 27 and 28 depend from claim 1. Hirao does not address the shortcomings of Demuth and Shohei discussed above in connection with claim 1. Claims 27 and 28 are therefore submitted to be allowable for at least the same reasons as claim 1.

### CONCLUSION

Each issue raised in the Office Action dated July 8, 2010, has been addressed, and it is believed that claims 1-31 and 33 are in condition for allowance. Wherefore, reconsideration and allowance of these claims is earnestly solicited. If the examiner believes that any additional changes would place the application in better condition for

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allowance, the examiner is invited to contact the undersigned attorney at the telephone number listed below.

*Deposit Account Authorization*

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 50-3828 and please credit any excess fees to such deposit account.

Respectfully submitted,



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Date: September 30, 2010

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## longitudinal

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**Main Entry:** **lon·gi·tu·di·nal**

**Pronunciation:** \,lan-jo-tu-də-nəl, -t(y)ō-də-nəl, British also ,lān-gā-lə-

**Function:** *adjective*

**Date:** 15th century

**1 :** placed or running lengthwise

**2 :** of or relating to length or the lengthwise dimension

**3 :** involving the repeated observation or examination of a set of subjects over time with respect to one or more study variables  
— *lon·gi·tu·di·nally* *adverb*

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